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     (FILE 'HOME' ENTERED AT 07:51:15 ON 11 JUN 2008)
     FILE 'CA' ENTERED AT 07:51:36 ON 11 JUN 2008
L1  34251 S (CAPTUR? OR TRAP? OR CONFIN? OR SHEATH OR IMMOBILI? OR HOLD? OR
          STOP?)(6A)(PARTICLE OR MICROPARTICLE OR NANOPARTICLE OR BEAD OR
          MICROBEAD OR NANOBEAD OR MICROBALL OR MICROSPHERE OR NANOBALL OR
          NANOSPHERE OR PARTICULATE OR MICROPARTICULATE OR NANOPARTICULATE
          OR NANOSUPPORT OR MICROSUPPORT)
L2  45059 S (COLLECT? OR EXTRACT? OR FILTER? OR CATCH? OR SNARE OR FUNNEL)
          (6A)(PARTICLE OR MICROPARTICLE OR NANOPARTICLE OR BEAD OR
          MICROBEAD OR NANOBEAD OR MICROBALL OR MICROSPHERE OR NANOBALL OR
          NANOSPHERE OR PARTICULATE OR MICROPARTICULATE OR NANOPARTICULATE
          OR NANOSUPPORT OR MICROSUPPORT)
L3  39573 S (RESTRAIN? OR RETAIN? OR RETENTION OR SEPARAT? OR POCKET)(6A)
          (PARTICLE OR MICROPARTICLE OR NANOPARTICLE OR BEAD OR MICROBEAD OR
          NANOBEAD OR MICROBALL OR MICROSPHERE OR NANOBALL OR NANOSPHERE OR
          PARTICULATE OR MICROPARTICULATE OR NANOPARTICULATE OR NANOSUPPORT
          OR MICROSUPPORT)
L4  83977 S L1-3 AND PY<2004
L5    208 S L4 AND OPTIC?(1A)(TWEE!ER OR GRADIENT FORCE OR TRAP)
L6    266 S L4 AND(MICROFLUID? OR MICROFABRICAT? OR MICROMACHIN? OR MICRO(W)
          (FLUIDIC? OR MACHIN? OR FABRICAT?))
L7      9 S L5 AND L6
L8     95 S L6 AND((LASER OR OPTICAL?)(2A)MANIPULAT? OR FLOW FILTER OR
          ARRAYING OR MICROMACHINE PIPET OR MICROCHAMBER OR(HANDLING OR
          TRAPPING)(1W)(BEADS OR APPRATUS)OR FILTER CHAMBER OR MICROBEAD
          ARRAY OR SORTER OR SORTING OR RECIRCULAT? OR MICROFABRIC? OR
          FLEXIBLE MICROCHANNEL? OR WEIR OR FUNNEL)
L9      3 S L6 AND RATCHET
L10   100 S L7-9
     FILE 'BIOSIS' ENTERED AT 08:45:35 ON 11 JUN 2008
L11    13 S L10
     FILE 'MEDLINE' ENTERED AT 08:46:55 ON 11 JUN 2008
L12    19 S L10
     FILE 'CA, BIOSIS, MEDLINE' ENTERED AT 08:48:34 ON 11 JUN 2008
L13   108 DUP REM L10 L11 L12 (24 DUPLICATES REMOVED)

=> d bib,ab l13 1-108

L13  ANSWER 29 OF 108  CA  COPYRIGHT 2008 ACS on STN
AN   139:269748  CA
TI   Fabrication of bead-size sorting chip for chemical array sensor
AU   Park, Byung Hwa; Park, Yoon Seok; Sohn, Young-Soo; Neikirk, Dean
CS   Dep. Electrical and Computer eng., Univ. of Texas at Austin, Austin, TX,
     78758, USA
SO   Proceedings of SPIE-The International Society for Optical Engineering
     (2003), 5116(Pt. 1, Smart Sensors, Actuators, and MEMs), 303-313
AB   Combinations of micromachined platforms and chem. sensitive micro-beads
     were demonstrated for use as multi-analyte chem. and biol. agent
     detectors.  Two crit. requirements for bead-based chem. detection
     platforms are bead retention and assembly.  Sep. cover layers were used
     in the past for retention, but this constrains fluid flow through the
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device, and may require the use of precision spacers. Since chem. sensing mols. within the beads can be quite sensitive exposure to high temps. or harsh chems. used in micromachining must be avoided after beads are placed in the platform. Here the authors present a new device whose fabrication is completed before placing the beads, and that provides both bead confinement and a means for self-assembly of arrays. Simple micromachined flexible fingers are used for all functions. The micromachined fingers are designed to bend out of the way as a bead is placed into a micromachined storage well, but then snap back after the bead is fully inserted into the well. Also by designing different sized openings over each well it is possible to construct self-assembling bead arrays.

L13 ANSWER 38 OF 108 CA COPYRIGHT 2008 ACS on STN
AN 137:281288 CA
TI Fabrication of linear colloidal structures for microfluidic applications
AU Terray, A.; Oakey, J.; Marr, D. W. M.
CS Chemical Engineering Department, Colorado School of Mines, Golden, CO, 80401, USA
SO Applied Physics Letters (2002), 81(9), 1555-1557
AB In this letter, an optical microfabrication and actuation method for the creation of microfluidic structures is described. In this approach, an optical trap is used to position and polymerize colloidal microspheres into linear structures to create particle or cell directing devices within microfluidic channel networks. To demonstrate the utility of these structures, two microscale particulate valves are shown, a passive design that restricts particulate flow in one direction and another design that directs particulate flow to one of two exit channels.

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STN INTERNATIONAL LOGOFF AT 08:49:24 ON 11 JUN 2008